

MANIPAL UNIVERSITY**SECOND YEAR B.P.T./B.O.T./B.Sc. R.T./ B.Sc. C.V.T./ B.Sc. R.R.T. & D.T/
FOURTH SEMESTER B. PFT DEGREE EXAMINATION – DECEMBER 2016****SUBJECT: PATHOLOGY****(2010 REGULATION/2011 SCHEME/2010 SCHEME/2011 SCHEME/BDT 201/PFT 204-2014 SCHEME)**

Thursday, December 15, 2016

Time: 10:00-11:30 Hrs.

Max. Marks: 40

- ✍ **Answer ALL questions.**
- ✍ **Illustrate your answers with diagrams wherever necessary.**

1. Define and classify shock. Discuss the etiopathogenesis of septic shock.
(2+2+3 = 7 marks)

2. Define and classify anemias. Describe the lab investigations with blood and bone marrow findings in Megaloblastic anemia.
(2+2+4 = 8 marks)

3. **Write short notes on:**
 - 3A. Necrosis
 - 3B. Etiopathogenesis of rheumatic heart fever
 - 3C. Definition and FAB classification of acute myeloid leukemia
 - 3D. Primary pulmonary tuberculosis
 - 3E. Causes of thrombocytopenia

(5 marks × 5 = 25 marks)



MANIPAL UNIVERSITY**SECOND YEAR BPT/BOT/B.Sc. RT/B.Sc. CVT/B.Sc. RRT & DT/
FOURTH SEMESTER B. PFT DEGREE EXAMINATION – DECEMBER 2016****SUBJECT: MICROBIOLOGY**

(COMMON FOR 2010 REGULATION/2011 SCHEME/2010 SCHEME/2011 SCHEME/BDT 202/PFT 206-2014 SCHEME)

Friday, December 16, 2016

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ Draw Diagrams wherever appropriate.

1. Classify hypersensitivity. With suitable examples discuss the mechanism of immediate hypersensitivity. (3+5 = 8 marks)

2. Discuss the pathogenesis and laboratory diagnosis of hepatitis B virus infection. (3+4 = 7 marks)

3. **Write short notes on:**

3A. Louis Pasteur

3B. Bacterial flagella

3C. Virion structure

3D. Investigation of nosocomial infections

3E. Laboratory diagnosis of Streptococcus pneumonia infection

(5 marks × 5 = 25 marks)



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MANIPAL UNIVERSITY
SECOND YEAR B.P.T./B.O.T./B.Sc. M.I.T./B.Sc. C.V.T./B.Sc. R.R.T. & D.T.
DEGREE EXAMINATION – DECEMBER 2016

SUBJECT: PHARMACOLOGY
(COMMON FOR 2010 REGULATION/2011 BATCH/2012 SCHEME/2011 SCHEME/BDT 203)

Saturday, December 17, 2016

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ **Answer the following questions:**

- 1A. Mention two advantages and two disadvantages of intramuscular route of drug administration.
List two drugs that can be given by this route.
- 1B. Describe the pharmacological effects of adrenaline on cardiovascular system.
- 1C. List two glucocorticoids and explain their anti-inflammatory action.
- 1D. List two drugs useful in chronic gout and explain the mechanism of action of any one of them.
(3 marks × 4 = 12 marks)

2. **Define the following terms with an example for each:**

- 2A. Synergism
- 2B. Teratogenicity
- 2C. Generic name of a drug
(2 marks × 3 = 6 marks)

- 3A. List two sources of drugs with an example for each.
- 3B. Mention four differences between aspirin and paracetamol.
- 3C. List two classes of drugs with an example for each useful in angina.
(2 marks × 3 = 6 marks)

4. **Mention two examples and two therapeutic uses of the following group of drugs:**

- 4A. Beta lactam antibiotics
- 4B. Benzodiazepines
- 4C. Anticoagulants
- 4D. Proton pump inhibitors
(2 marks × 4 = 8 marks)

5. **List two drugs used in the following conditions:**

- 5A. Parkinsonism
- 5B. Diabetes mellitus
- 5C. Cough
- 5D. HIV infection
- 5E. Epilepsy
(1 mark × 5 = 5 marks)

6. **List one example and one specific adverse effect of the following group of drugs:**

- 6A. Loop diuretics
- 6B. ACE inhibitors
- 6C. Aminoglycosides
(1 mark × 3 = 3 marks)

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SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2016

**SUBJECT: PSYCHOLOGY
(2010 REGULATION)**

Monday, December 19, 2016

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. Essay type questions (attempt any TWO)

- 1A. What are the methods of psychology?
- 1B. Define personality and explain various theories of personality.
- 1C. What is counselling? Write various types of counselling.

(15 marks × 2 = 30 marks)

2. Write short notes on any SIX:

- 2A. Explain classical conditioning.
- 2B. Write two theories of emotions.
- 2C. Dynamic tradition in clinical psychology
- 2D. General adaptation syndrome (GAS)
- 2E. Any two theories of intelligence
- 2F. What are projective test
- 2G. Time out procedure
- 2H. Laws of learning
- 2I. Ellis approach to cognitive therapy

(5 marks × 6 = 30 marks)

3. Definitions (attempt any FIVE)

- 3A. Define illusion
- 3B. Define learning
- 3C. What is extinction
- 3D. Define spontaneous recovery
- 3E. Counselling
- 3F. Intelligence
- 3G. Psychological assessment

(3 marks × 5 = 15 marks)

4. Multiple Choice Questions:

- 4A. Which one is not a basic emotion?
 - i) Happiness
 - ii) Sadness

- 4B. Classical conditioning was given by _____
- i) Rachel
 - ii) Fukouka
 - iii) Watson
 - iv) Pavlov
- 4C. Perception involves the process of _____ sensory stimuli.
- i) Fixation
 - ii) Interpretation
 - iii) Attention
 - iv) Involvement
- 4D. Learning is relatively _____ change in the behaviour.
- i) Latent
 - ii) Permanent
 - iii) Hidden
 - iv) Obvious
- 4E. Trait approach of personality is by _____
- i) Carl Rogers
 - ii) Alfred Addler
 - iii) Cattle
 - iv) Sheldon

(1 mark × 5 = 5 marks)



MANIPAL UNIVERSITY**SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2016****SUBJECT: BIOMECHANICS AND EXERCISE THERAPY – II
(2010 REGULATION)**

Tuesday, December 20, 2016

Max. Marks: 80

Time: 10:00-13:00 hrs.

Answer ALL questions.**SECTION A: BIOMECHANICS****Essay question:**

1. Discuss the biomechanics of the hip joint. (10 marks)

2. Write short notes on:

- 2A. Explain the kinematics of the subtalar joint.
2B. Write in detail about the determinants of normal gait.
2C. Discuss in detail the role of dynamic stabilizers of the shoulder joint.
2D. Explain the role of patella-femoral joint with respect to joint reaction force at knee joint.
(5 marks × 4 = 20 marks)

3. Write brief answers on:

- 3A. Lumbopelvic rhythm
3B. Mention the medial and lateral stabilizers of elbow joint
3C. What are the arches of the foot?
3D. Stress-strain curve
3E. Mention the phases of gait.
(2 marks × 5 = 10 marks)

SECTION B: EXERCISE THERAPY**Essay question:**

4. Write in detail the indications and contraindications of joint mobilization. Add a note on grades of mobilization.
(5+5 = 10 marks)

5. Write short notes on:

- 5A. Write the principles of PNF.
5B. Explain delorme protocol for strengthening.

5C. Explain the screw home mechanism for knee joint.

5D. Explain in detail the types of traction and its indications and contraindications.

(5 marks \times 4 = 20 marks)

6. **Write brief answers on:**

6A. Any two principles of Functional Re-education Exercises.

6B. Mention the types of crutches.

6C. Mention the components of trick movements.

6D. Write any two precautions during stretching.

6E. Define co-ordination. Mention any two causes for incoordination.

(2 marks \times 5 = 10 marks)



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SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2016

SUBJECT: ELECTROTHERAPY (2010 REGULATION)

Wednesday, December 21, 2016

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

1. **Essay questions:**

- 1A. Describe the production of SWD. Explain the Physiological effects of SWD.
(5+5 = 10 marks)
- 1B. Explain any four local therapeutic effects of UVR. Add a note on dangers and precautions for UVR application.
(6+4 = 10 marks)

2. **Write short notes on:**

- 2A. Explain pain gate theory
2B. Compare paraffin wax bath and moist heat
2C. What is Iontophoresis? Mention the precautions and dangers of Iontophoresis
2D. Methods of applications of LASER for pressure sore
2E. Physiological effects of cryotherapy
2F. Faradic Galvanic test
2G. Methods of applications of IFT
2H. Electromagnetic spectrum
(5 marks × 8 = 40 marks)

3. **Write brief answers on:**

- 3A. Define Arndt-Schultz law
3B. What is half value depth?
3C. Name any four superficial heating modalities
3D. Define dielectric constant
3E. Mention the different methods of heat transfer
3F. What is beat frequency?
3G. Classify Ultra Violet Radiation
3H. Types of IRR generators
3I. Define Rheobase
3J. Define Joules law
(2 marks × 10 = 20 marks)

